

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A support structure for a tool comprising
 - (a) a boom or arm for supporting the tool,
 - (b) a pendulum pivot supporting the tool with respect to the boom
 - 5 or arm in a manner which allows the tool to pendulate,
 - (c) self monitoring and operating dampening means for controlling the pendulation of the tool on the pendulum pivot with respect to the boom or arm.
2. A support structure for a tool according to claim 1 wherein the
10 pendulum pivot comprises a first pivoted link supporting the tool from the boom and enabling it to swing in a first plane and a second pivoted link on a second plane at right angles to the first plane, and wherein the dampening means controls the pendulation of the tool relative to the boom in either plane.
3. A support structure for a tool according to claim 2 wherein the first
15 pivoted link comprises a frame having two spaced lugs joined by a cross member, the lugs being pivotably connected to a yoke which provides a second pivotal link with the tool, said second pivotal link comprising a frame extending from the tool which is pivotably connected to said pair of spaced plates.
4. A support structure for a tool according to any one of the claims 1 to 3
20 wherein the dampening means comprise rotary hydraulic actuators wherein pivot connections of the pendulum pivot are coupled to a rotor of the rotary hydraulic actuators.
5. A support structure for a tool according to claim 4 wherein the
25 dampening means includes a rotary hydraulic actuator coupled to each pivot connection of the dampening means.
6. A support structure for a tool according to either claim 4 or claim 5 wherein the rotary hydraulic actuators are sealed and include a closed-loop of hydraulic fluid that serves to dampen the rotation of the pivots.
7. A support structure for a tool according to any one of claims 4 to 6
30 wherein the rotary hydraulic actuators include grooves or flutes in the rotor housing, rotor, end plate of the motor, and/or in the pivoted connection.
8. A method of dampening using a hydraulic rotary actuator the method

comprising the steps of:

- (a) coupling a rotary hydraulic actuator to a pivot connection, static or rotating element of a device,
 - (b) adapting the rotary hydraulic actuator to provide varying rotary
- 5 resistance to the connection, or static or rotary element of the device.